

**REMARKS:**

Claims 1-7, 9-16, 18-25, and 27 are currently pending in the subject Application. Claims 6, 15, and 24 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1-7, 9-16, 18-25, and 27 stand rejected under 35 U.S.C. § 101. Claims 1-5, 7, 9-14, 16, 18-23, 25, and 27 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,219,649 to Joel Jameson ("Jameson") in view of the Examiner's Official Notice. Claims 6, 15, and 24 stand rejected under 35 U.S.C. § 103(a) over *Jameson* in view of U.S. Patent No. 5,983,195 to Paul C. Fierro ("Fierro").

A Final Office Action in the subject Application was mailed to the undersigned on 15 March 2006, which provides for a response period ending 15 June 2006. The Applicant filed an Amendment After Final on 20 April 2006, within two (2) months of the date of the Final Office Action. An Advisory Action was mailed to the undersigned on 11 May 2006. The Advisory Action stated that for the purposes of appeal, the proposed Amendments filed on 20 April 2006 will be entered and an explanation of how the amended claims would be rejected is provided. (11 May 2006 Advisory Action, Page 1). The Advisory Action further stated that the Applicants request for reconsideration has been considered but does not place the application in condition for allowance. (11 May 2006 Advisory Action, Page 1). The Applicants respectfully disagree and reiterate here the arguments set forth in the Amendment After Final filed on 20 April 2006, as if fully set forth herein.

Although the Applicants believe claims 1-7, 9-16, 18-25, and 27 are directed to patentable subject matter and are in condition for allowance without amendment. The Applicants have amended independent claims 1, 9, 10, 18, 19, and 27 and dependent claims 3, 6, 12, 15, 21, and 24 to expedite prosecution of this Application and to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In addition, the applicants have added new claims 28-30 to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. By making these amendments, the Applicants make no admission concerning the merits of the Examiner's rejection and respectfully reserve the right to address any statement or averment of the Examiner not specifically addressed, in this

response. Particularly, the Applicants reserve the right to file additional claims in this Application or through a continuation patent application of substantially the same scope of originally filed claims 1-27. No new matter has been added.

**REJECTION UNDER 35 U.S.C. § 112:**

Claims 6, 15, and 24 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner specifically states that the "term 'as close to equal as possible' in claims 6, 15, and 24 is a relative term which renders the claim indefinite." (15 March 2006 Final Office Action, Page 5). The Applicants respectfully disagree. Nonetheless, the Applicants have amended dependent claims 6, 15, and 24 in an effort to expedite prosecution of this Application and to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. By making these amendments, the Applicants do not indicate agreement with or acquiescence to the Examiner's position with respect to the rejections of these claims under 35 U.S.C. § 112, as set forth in the Office Action.

The Applicants respectfully submit that amended dependent claims 6, 15, and 24 are considered to be in full compliance with the requirements of 35 U.S.C. § 112. The Applicants further submit that amended dependent claims 6, 15, and 24 are in condition for allowance. Thus, the Applicants respectfully request that the rejection of claims 6, 15, and 24 under 35 U.S.C. § 112 be reconsidered and that claims 6, 15, and 24 be allowed.

**REJECTION UNDER 35 U.S.C. § 101:**

Claims 1-7, 9-16, 18-25, and 27 stand rejected under 35 U.S.C. § 101 as allegedly being directed towards non-statutory subject matter.

Although the Applicants believe claims 1-7, 9-16, 18-25, and 27 are directed to patentable subject matter and are in condition for allowance without amendment. The Applicants have amended independent claims 1, 9, 10, 18, 19, and 27 and dependent claims 3, 6, 12, 15, 21, and 24 to expedite prosecution of this Application and to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In addition, the applicants have added new claims 28-30 to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. By making these amendments, the Applicants do not indicate agreement with or acquiescence to the Examiner's position with respect to the rejections of these claims under 35 U.S.C. § 101, as set forth in the Office Action.

It appears that the Examiner is basing the 35 U.S.C. § 101 rejection on an alleged failure to be *within the technological arts*. (15 March 2006 Final Office Action, Page 5). The Applicants respectfully disagree.

However, the Board of Patent Appeals and Interferences has recently ruled that no such test exists:

Our determination is that ***there is currently no judicially recognized separate "technological arts" test to determine patent eligible subject matter under § 101***. We decline to propose to create one. Therefore, it is apparent that ***the examiner's rejection can not be sustained***.

*Ex parte Lundren*, Appeal No. 2003-2088, Application 08/093,516 (Precedential BPAI opinion September 2005). (Emphasis Added).

Thus, it is respectfully submitted that the present rejection is based on an improper test. Accordingly, reconsideration and withdrawal of the rejection of claims 1-7, 9-16, 18-25, and 27 under 35 U.S.C. § 101 is respectfully requested.

In addition, the Applicants respectfully request that the Examiner call the undersigned at (817) 447-9955, if the Examiner has additional comments or suggestions to the 35 U.S.C. § 101 rejection of the subject Application or if the Examiner believes it would be easier to discuss the 35 U.S.C. § 101 rejection over the telephone.

**REJECTION UNDER 35 U.S.C. § 102(a):**

The Applicants thank the Examiner for withdrawing the 35 U.S.C. § 102(a) rejection.

**REJECTION UNDER 35 U.S.C. § 103(a):**

Claims 1-5, 7, 9-14, 16, 18-23, 25, and 27 stand rejected under 35 U.S.C. § 103(a) over *Jameson* in view of the Examiner's Official Notice. Claims 6, 15, and 24 stand rejected under 35 U.S.C. § 103(a) over *Jameson* in view of *Fierro*.

Although the Applicants believe claims 1-7, 9-16, 18-25, and 27 are directed to patentable subject matter and are in condition for allowance without amendment. The Applicants have amended independent claims 1, 9, 10, 18, 19, and 27 and dependent claims 3, 6, 12, 15, 21, and 24 to expedite prosecution of this Application and to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In addition, the applicants have added new claims 28-30 to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. By making these amendments, the Applicants do not indicate agreement with or acquiescence to the Examiner's position with respect to the rejections of these claims under 35 U.S.C. § 103(a), as set forth in the Office Action.

The Applicants respectfully submit that *Jameson* or the Examiner's Official Notice, either individually or in combination, fail to disclose, teach, or suggest each and every element of claims 1-5, 7, 9-14, 16, 18-23, 25, and 27. The Applicants further respectfully submit that *Jameson* or *Fierro*, either individually or in combination, fail to disclose, teach, or suggest each and every element of claims 6, 15, and 24. The Applicants still further respectfully submit that ***the amendments to independent claims 1, 9, 10, 18, 19, and 27 have rendered moot the Examiner's rejection of claims 1-5, 7, 9-14, 16, 18-23, 25, and 27 and the Examiner's arguments in support of the rejection of claims 1-5, 7, 9-14, 16, 18-23, 25, and 27.*** The Applicants yet further respectfully submit that amended independent claims 1, 9, 10, 18, 19, and 27 in their current amended form contain unique

and novel limitations that are not disclosed, suggested, or even hinted at in *Jameson*, *Fierro*, or the Examiner's Official Notice. Thus, the Applicants respectfully traverse the Examiner's obvious rejection of claims 1-7, 9-16, 18-25, and 27 under 35 U.S.C. § 103(a) over the proposed combination of *Jameson*, *Fierro*, or the Examiner's Official Notice, either individually or in combination.

### **The Proposed *Jameson*-Official-Notice Fails to Disclose, Teach, or Suggest Various Limitations Recited in Applicants Claims**

For example, with respect to amended independent claim 1, this claim recites:

***A computer-implemented method for solving a supply chain planning problem***, comprising the steps of:

***decompositioning the supply chain planning problem into a plurality of independent sub-problems;***

***providing a plurality of distributed partitions in a database***, each partition of said plurality of distributed partitions associated with a respective independent sub-problem of said supply chain planning problem;

***operating at least one processor in said database***, each of said at least one processor associated with a respective partition of said plurality of distributed partitions;

***forming a plurality of distributed sub-problem partitions***, each of said distributed sub-problem partitions including a plurality of related items and associated with a respective independent sub-problem of said supply chain planning problem;

***loading data into a plurality of distributed database partitions***, said data associated with said plurality of related items, and each of said distributed database partitions associated with a respective one of each of said distributed sub-problem partitions; and

***solving each of said plurality of said independent sub-problems by separate processes operating in parallel in said database.*** (Emphasis Added).

Amended independent claims 9, 10, 18, 19, and 27 recite similar limitations. *Jameson* or the Examiner's Official Notice fails to disclose each and every limitation of amended independent claims 1, 9, 10, 18, 19, and 27.

The Applicants respectfully submit that *Jameson* has nothing to do with amended independent claim 1 limitations regarding "***a computer-implemented method for solving***

*a supply chain planning problem*" and in particular *Jameson* has nothing to do with amended independent claim 1 limitations regarding "**decompositioning the supply chain planning problem into a plurality of independent sub-problems**". Rather *Jameson* discloses a method of allocating resources in an uncertain environment. (Abstract and Column 1, Lines 10-15). In particular, the Examiner equates "**decompositioning the supply chain planning problem into a plurality of independent sub-problems**" recited in amended independent claim 1 with the process of dividing the allocation problem into simpler sub-problems disclosed in *Jameson*. (15 March 2006 Final Office Action, Pages 6-8). However, the process for dividing the allocation problem into simpler sub-problems disclosed in *Jameson* is provided for coping with the inherent NP-hardness of stochastic programming and for defining spaces for line searches, **but does not include dividing a large-scale supply chain planning problem or even any supply chain planning problem and is not even related to a supply chain planning problem in the first place**. (Column 7, Lines 45-54). In contrast, the algorithm recited in amended independent claim 1 is generated for dividing large-scale supply chain planning problems into a plurality of independent sub-problems and to identify clusters and create partitions made up of the clusters. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner's comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent claim 1 from *Jameson*.

The Applicants further respectfully submit that *Jameson* has nothing to do with amended independent claim 1 limitations regarding "**providing a plurality of distributed partitions in a database**, each partition of said plurality of distributed partitions associated with a respective independent sub-problem of said supply chain planning problem". As mentioned above, *Jameson* discloses a method of allocating resources in an uncertain environment. (Abstract and Column 1, Lines 10-15). However, the method of allocating resources disclosed in *Jameson*, **does not include or is not even related to** "**providing a plurality of distributed partitions in a database**" and "**associated with a respective independent sub-problem of said supply chain planning problem**". Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner's

comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent claim 1 from *Jameson*.

The Applicants further respectfully submit that *Jameson* has nothing to do with amended independent claim 1 limitations regarding “operating **at least one processor in said database**, each of said at least one processor associated with a respective partition of said plurality of distributed partitions”. In fact, *Jameson*, does not disclose, teach or suggest “processor associated with a respective partition of said plurality of distributed partitions” or even a processor associated with a distributed partition in a database. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner’s comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent claim 1 from *Jameson*.

The Applicants further respectfully submit that *Jameson* has nothing to do with amended independent claim 1 limitations regarding “**forming a plurality of distributed sub-problem partitions**, each of said distributed sub-problem partitions including a plurality of related items and associated with a respective independent sub-problem of said supply chain planning problem”. In particular, the Examiner equates “**forming a plurality of distributed sub-problem partitions**” recited in amended independent claim 1 with the process of accounting for larger sub-problems, disclosed in *Jameson*. (15 March 2006 Final Office Action, Pages 6-8). However, the process of accounting for larger sub-problems disclosed in *Jameson* is provided for defining spaces for line-searches which are used to optimize allocations over ever larger sub-problems. (Column 7, Lines 45-54). In contrast, the “**forming [of] a plurality of distributed sub-problem partitions**” recited in amended independent claim 1 is “associated with a respective independent sub-problem of said supply chain planning problem” and includes “a plurality of related items”. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner’s comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent claim 1 from *Jameson*.

The Applicants further respectfully submit that *Jameson* has nothing to do with amended independent claim 1 limitations regarding “***loading data into a plurality of distributed database partitions***, said data associated with said plurality of related items, and each of said distributed database partitions associated with a respective one of each of said distributed sub-problem partitions”. In particular, the Examiner equates “***loading data into a plurality of distributed database partitions***” recited in amended independent claim 1 with the column-matrixes disclosed in *Jameson*. (15 March 2006 Final Office Action, Pages 6-8). However, the column-matrixes disclosed in *Jameson* is class definitions of WWWMatrix and AAMatrix which hold vectors w and a corresponding to a scenario, ***but does not include a distributed database partition and is not associated with a distributed sub-problem partition***. (Column 11, Lines 3-15). In contrast, the algorithm recited in amended independent claim 1 is provided for “***loading data into a plurality of distributed database partitions***” and the data is associated with the plurality of related items. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner’s comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent claim 1 from *Jameson*.

The Applicants further respectfully submit that *Jameson* has nothing to do with amended independent claim 1 limitations regarding “***solving each of said plurality of said independent sub-problems by separate processes operating in parallel in said database***”. In particular, the Examiner equates “***solving each of said plurality of said independent sub-problems***” recited in amended independent claim 1 with the process of determining the optimal allocation point disclosed in *Jameson*. (15 March 2006 Final Office Action, Pages 6-8). However, the process of determining the optimal allocation point disclosed in *Jameson* is provided for solving each sub-problem independently. (Column 8, Lines 8-25). In contrast, the algorithm recited in amended independent claim 1 is generated for “***solving each of said plurality of said independent sub-problems by separate processes operating in parallel in said database***”.

In addition, the Examiner asserts that a “***distributed database is defined as a database that [can] be distributed to several computers.***” (15 March 2006 Final Office Action, Page 8). The Applicants respectfully disagree and further respectfully submit that the Examiner has mischaracterized the subject Application as well as *Jameson*. *Jameson* merely discloses line-search techniques that serve as starting points for finding the overall optimal allocation, *but does not include, or is not even related to “solving each of said plurality of said independent sub-problems by separate processes operating in parallel in said database”*. (Column 8, Lines 8-25). In contrast, “***solving each of said plurality of said independent sub-problems***” recited in amended independent claim 1 is solved by “***separate processes operating in parallel in said database***” wherein said database is “***a plurality of distributed partitions***” and each partition of said plurality of distributed partitions is “***associated with a respective independent sub-problem of said supply chain planning problem***”. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner’s comparison between *Jameson* and amended independent claim 1 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent claim 1 from *Jameson*.

The Applicants respectfully submit that the Office Action acknowledges, and the Applicants agree, that *Jameson* fails to disclose the emphasized limitations noted above in amended independent claim 1. Specifically the Examiner acknowledges that *Jameson* fails to teach a ***computer-implemented method for solving a supply chain planning problem.*** (15 March 2006 Final Office Action, Page 8). However, it appears that the Examiner asserts Official Notice over the acknowledged shortcomings in *Jameson*. The Applicants respectfully traverse the Examiner’s assertions regarding any subject matter disclosed in *Jameson* or the Examiner’s Official Notice. The Applicants further submit that *Jameson* or the Examiner’s Official Notice have nothing to do with amended independent claim 1 limitations regarding “***a computer-implemented method for solving a supply chain planning problem***”.

**The Examiner's Official Notice is improper under MPEP § 2144.03**

The Applicants respectfully submit that the Applicants are confused as to what the Examiner teaches by the Official Notice or even the extent in which the Examiner is taking Official Notice. The Applicants respectfully request clarification as to the subject matter for which the Examiner is taking Official Notice. ***The Applicants respectfully traverse the Official Notice because the asserted facts, as best understood by the Applicants, are not supported by substantial documentary evidence or any type of documentary evidence and appear to be the Examiner's opinions formulated using the subject Application as a template, which constitutes impermissible use of hindsight.*** Furthermore, under these circumstances, it is inappropriate for the Examiner to take Official Notice without documentary evidence to support the Examiner's conclusion. (See MPEP § 2144.03). ***The Applicants respectfully request the Examiner to produce authority for the Examiner's Official Notice.***

Only "in limited circumstances," is it "appropriate for an examiner to take official notice of facts not in the record or to rely on common knowledge in making a rejection". (MPEP § 2144.03). "Official notice unsupported by documentary evidence **should only be taken by the examiner** where the facts asserted to be well-known, or to be common knowledge in the art are **capable of instant and unquestionable demonstration as being well-known**. With respect to the subject Application, **the Examiner's statement** that "**resource allocation is part of supply chain management**, thus **solving a resource allocation problem is the same as solving a supply chain management problem**", **is not capable of instant and unquestionable demonstration as being well-known**. (15 March 2006 Final Office Action, Page 8). As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be '**capable of such instant and unquestionable demonstration as to defy the dispute**' (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 U.S.P.Q. 6 (C.C.P.A. 1961))." (MPEP § 2144.03(A)). (Emphasis Added).

***"It is never appropriate to rely solely on 'common knowledge' in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based.*** Zurko, 258 F.3d at 1385, 59 USPQ2d at 1697. (Emphasis Added). As the court held in Zurko, an assessment of basic knowledge and common sense that is not based on any evidence in the record lacks substantial evidence support. *Id.* at 1385, 59 USPQ2d at 1697. See also *In re Lee*, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002)." (MPEP § 2144.03(A)). "Ordinarily, there must be some form of evidence in the record to support an assertion of common knowledge. See *Lee*, 277 F.3d at 1344-45, 61 USPQ2d at 1434-35 (Fed. Cir. 2002); *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697 (holding that ***general conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection***). The examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge. See *Soli*, 317 F.2d at 946, 37 USPQ at 801; *Chevenard*, 139 F.2d at 713, 60 USPQ at 241. The applicant should be presented with the explicit basis on which the examiner regards the matter as subject to official notice and be allowed to challenge the assertion in the next reply after the Office action in which the common knowledge statement was made." (MPEP § 2144.03(B)). (Emphasis Added).

With respect to the subject Application, ***the Examiner has not properly Officially Noticed or not properly based the Official Notice on common knowledge.*** The Examiner's conclusory statement:

However, Jameson discloses a method for resource allocation. ***Resource allocation is part of supply chain management, thus solving a resource allocation problem is the same as solving a supply chain management problem.*** (15 March 2006 Final Office Action, Page 8). (Emphasis Added)

The above noticed Examiner's conclusory statement ***does not adequately address the issue that this statement is considered to be common knowledge or well-known in the art***, in fact, ***it merely presupposes what it concludes.*** The

Applicants respectfully submit that the Office Action provides no documentary evidence to support the Official Notice taken by the Examiner, yet the asserted facts are not capable of “instant and unquestionable” demonstration as being well-known. ***The Applicants respectfully request the Examiner to produce authority for the Examiner’s statement “resource allocation is part of supply chain management, thus solving a resource allocation problem is the same as solving a supply chain management problem”,*** is old and well known.

The Applicants further submit that ***the Applicants have adequately traversed the Examiner’s assertion of Official Notice*** and direct the Examiner’s attention to the pertinent text of the MPEP, which states:

If applicant adequately traverses the examiner’s assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697 (“[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings” to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2). (MPEP § 2144.03(C)).

Thus, if the Examiner continues to maintain the rejection of claims 1-7, 9-16, 18-25, and 27 based on the Official Notice, ***the Applicants respectfully request that the Examiner provide documentary evidence*** as necessitated by MPEP § 2144.03(C). Furthermore, if the Examiner is relying on personal knowledge to support the finding of what is known in the art, ***the Applicants further request that the Examiner provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding*** as further necessitated by MPEP § 2144.03(C).

The Applicants further respectfully submit that the Office Action has failed to properly establish a *prima facie* case of obviousness based on the proposed combination of Jameson or the Examiner’s Official Notice, either individually or in combination. The Office Action has not shown the required teaching, suggestion, or motivation in these

references or in knowledge generally available to those of ordinary skill in the art at the time of the invention to combine these references as proposed. The Office Action merely states that "it would have been obvious, at the time of the invention, for one of ordinary skill in the art to use the Jameson resource allocation method for solving supply chain problems". (15 March 2006 Final Office Action, Page 8). The Applicants respectfully disagree.

The Applicants further submit that this purported advantage relied on by the Examiner is nowhere disclosed, taught, or suggested in *Jameson* or the Examiner's Official Notice, either individually or in combination. The Examiner asserts that the motivation to combine the references as proposed would be "***because resource allocation is part of supply chain management.***" (15 March 2006 Final Office Action, Page 8). The Applicants respectfully disagree and further respectfully requests clarification as to how the Examiner arrives at this conclusion. For example, how does the Examiner arrive at the conclusion that "solving a resource allocation problem is the same as solving a supply chain management problem." (15 March 2006 Final Office Action, Page 8). As another example, to what extent does the Examiner purport that "solving a resource allocation problem" applies to the subject Application. ***The Applicants respectfully request the Examiner to point to the portions of Jameson or the Examiner's Official Notice which contain the teaching, suggestion, or motivation to combine these references for the for the Examiner's stated purported advantage.*** In particular, the Applicants respectfully request the Examiner to point to the portions of *Jameson* or the Examiner's Official Notice which expressly state that "***resource allocation is part of supply chain management***". The Applicants further submit that the Examiner is using the subject Application as a template to formulate reconstructive hindsight, which constitutes impermissible use of hindsight under 35 U.S.C. § 103(a).

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the ***prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art.*** *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). (Emphasis Added). Conclusory statements regarding common knowledge and common

sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. With respect to the subject Application, the ***Examiner has not adequately supported the selection and combination of Jameson or the Examiner's Official Notice to render obvious the Applicants claimed invention.*** The Examiner's conclusory statements that "it would have been obvious, at the time of the invention, for one of ordinary skill in the art to use the Jameson resource allocation method for solving supply chain problems" and that "***because resource allocation is part of supply chain management***", ***does not adequately address the issue of motivation to combine.*** (15 March 2006 Final Office Action, Page 8). This factual question of motivation is material to patentability, and cannot be resolved on subjective belief and unknown authority. *Id.* It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983). Thus, ***the Office Action fails to provide proper motivation for combining the teachings of Jameson or the Examiner's Official Notice,*** either individually or in combination.

#### **The Proposed Jameson-Fierro Combination Fails to Disclose, Teach, or Suggest Various Limitations Recited in Applicants Dependent Claims 6, 15, and 24**

For example, with respect to dependent claim 6, this claim recites:

The method of Claim 2, wherein the step of forming a plurality of distributed sub-problem partitions from said plurality of clusters further comprises ***a step of equally sizing said distributed sub-problem partitions.*** (Emphasis Added).

Dependent claims 15 and 24 recite similar limitations. *Jameson* or *Fierro*, either individually or in combination, fail to disclose, teach, or suggest each and every limitation of dependent claims 6, 15, and 24.

The Applicants respectfully submit that the Office Action acknowledges, and the Applicants agree, that *Jameson* fails to disclose the emphasized limitations noted above in dependent claim 6. Specifically, the Examiner acknowledges that *Jameson* fails to disclose the step of forming a plurality of distributed sub-problem partitions from said

plurality of clusters further comprises ***a step of equally sizing said distributed sub-problem partitions.*** (15 March 2006 Final Office Action, Page 14). However, the Examiner asserts that the cited portions of *Fierro* disclose the acknowledged shortcomings in *Jameson*. The Applicants respectfully traverse the Examiner's assertions regarding the subject matter disclosed in *Fierro*.

The Applicants further respectfully submit that *Fierro* has nothing to do with dependent claim 6 limitations regarding "the step of forming a plurality of distributed sub-problem partitions from said plurality of clusters" and in particular *Fierro* has nothing to do with dependent claim 6 limitations regarding the "***step of equally sizing said distributed sub-problem partitions.***" Rather, *Fierro* discloses a system for scheduling product orders for a manufacturing facility. (Abstract). In particular, the Examiner equates the "***step of equally sizing said distributed sub-problem partitions***" recited in dependent claim 6 with the "grading and stability engine" disclosed in *Fierro*. (15 March 2006 Final Office Action, Page 14). However, the "grading and stability engine" disclosed in *Fierro* merely allows a user the ability to weight the stability objective with more or less importance as compared with other objectives, ***but does not include the ability to equally size distributed sub-problem partitions from the plurality of clusters.*** (Column 9, Line 19 through Column 10, Line 36). In contrast, the "***step of equally sizing said distributed sub-problem partitions***" recited in dependent claim 6 is provided for optimizing performance of the database partitions. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner's comparison between *Fierro* and dependent claim 6 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish dependent claim 6 from *Fierro*.

The Applicants further respectfully submit that the Office Action has failed to properly establish a *prima facie* case of obviousness based on the proposed combination of *Jameson* or *Fierro*, either individually or in combination. The Office Action has not shown the required teaching, suggestion, or motivation in these references or in knowledge generally available to those of ordinary skill in the art at the time of the invention to combine these references as proposed. The Office Action merely states that

"it would have been obvious at the time of the invention, to one of ordinary skill in the art to incorporate the advantages of sizing the sub-problem partitions as close to equal as possible as taught by *Fierro* to *Jameson's* system". (15 March 2006 Final Office Action, Page 14). The Applicants respectfully disagree.

The Applicants further submit that this purported advantage relied on by the Examiner is nowhere disclosed, taught, or suggested in *Jameson* or *Fierro*, either individually or in combination. The Examiner asserts that the motivation to combine the references as proposed would be "in order to more efficiently solve the sub-problems and **increase the overall efficiency of the system**, which is the goal of *Jameson*." (15 March 2006 Final Office Action, Page 14). The Applicants respectfully disagree and further respectfully requests clarification as to how the Examiner arrives at this conclusion. For example, how does "the advantages of sizing the sub-problem partitions as close to equal as possible" directly increase the "**overall efficiency of the system**" and what "**system**" is the Examiner referring to and to what extent does the Examiner purport that increasing the "**overall efficiency of the system**" applies to the subject Application. **The Applicants respectfully request the Examiner to point to the portions of *Jameson* or *Fierro* which contain the teaching, suggestion, or motivation to combine these references for the for the Examiner's stated purported advantage.** In particular, the Applicants respectfully request the Examiner to point to the portions of *Jameson* or *Fierro* which expressly state that "the advantages of sizing the sub-problem partitions as close to equal as possible" accounts for increasing the "**overall efficiency of the system**" and that the "**system**" is related to the system and method "for **solving a supply chain planning problem**", as recited in Applicants claims. In addition, the Applicants respectfully request the Examiner to point to the portions of *Jameson*, which states that to "**increase the overall efficiency of the system**" is the goal of *Jameson*, as the Examiner asserts. (15 March 2006 Final Office Action, Page 14). The Applicants further submit that the Examiner is using the subject Application as a template to formulate reconstructive hindsight, which constitutes impermissible use of hindsight under 35 U.S.C. § 103(a).

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the **prior art must disclose each and every element of the claimed**

*invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art.* *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). (Emphasis Added). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. With respect to the subject Application, the **Examiner has not adequately supported the selection and combination of Jameson or Fierro to render obvious the Applicants claimed invention.** The Examiner's conclusory statements that "it would have been obvious at the time of the invention, to one of ordinary skill in the art to incorporate the advantages of sizing the sub-problem partitions as close to equal as possible as taught by *Fierro* to *Jameson's* system" and that "in order to more efficiently solve the sub-problems and *increase the overall efficiency of the system*, which is the goal of *Jameson*", **does not adequately address the issue of motivation to combine.** (15 March 2006 Final Office Action, Page 8). This factual question of motivation is material to patentability, and cannot be resolved on subjective belief and unknown authority. *Id.* It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983). Thus, **the Office Action fails to provide proper motivation for combining the teachings of Jameson or Fierro**, either individually or in combination.

#### **The Applicants Claims are Patentable over the Proposed Jameson-Fierro-Official-Notice Combination**

As mentioned above, amended independent claims 1, 9, 10, 16, 18, 19, and 27 are considered patentably distinguishable over *Jameson*, *Fierro*, or the Examiner's Official Notice. With respect to dependent claims 2-7, 11-16, 20-25 and 28-30: claims 2-7 and 28 depend from amended independent claim 1; claims 11-16 and 28 depend from amended independent claim 10; and claims 20-25 and 30 depend from amended independent claim 19. As mentioned above, each of amended independent claims 1, 9, 10, 16, 18, 19, and 27 are considered patentably distinguishable over the proposed combination of *Jameson*, *Fierro*, or the Examiner's Official Notice. Thus, dependent claims 2-7, 11-16, 20-25 and

28-30 are considered to be in condition for allowance for at least the reason of depending from an allowable claim.

For at least the reasons set forth herein, the Applicants submit that claims 1-5, 7, 9-14, 16, 18-23, 25, and 27-30 are not rendered obvious by the proposed combination of *Jameson*, *Fierro*, or the Examiner's Official Notice. The Applicants still further submit that claims 1-5, 7, 9-14, 16, 18-23, 25, and 27-30 are in condition for allowance. Thus, the Applicants respectfully request that the rejection of claims 1-5, 7, 9-14, 16, 18-23, 25, and 27-30 under 35 U.S.C. § 103(a) be reconsidered and that claims 1-5, 7, 9-14, 16, 18-23, 25, and 27-30 be allowed.

#### **THE LEGAL STANDARD FOR OBVIOUSNESS REJECTIONS UNDER 35 U.S.C. § 103:**

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, ***there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.*** Second, there must be a reasonable expectation of success. Finally, ***the prior art reference*** (or references when combined) ***must teach or suggest all the claim limitations.*** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, ***and not based on applicant's disclosure.*** *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, ***there must be something in the prior art as a whole to suggest the desirability,*** and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere

fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

A recent Federal Circuit case makes it clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

**CONCLUSION:**

In view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and early reconsideration and a Notice of Allowance are earnestly solicited.

A Request for Continued Examination (RCE) is being filed in duplicate concurrently herewith to facilitate the processing of this deposit account authorization. **The Commissioner is hereby authorized to charge the RCE Fee of \$790.00 to Deposit Account No. 500777.** Because the Amendment After Final was filed within two (2) months of the date of the Final Office Action and this Amendment is filed prior to the ending of the response period 15 June 2006 of the Final Office Action mailed on 15 March 2006, no additional fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that may be required, or credit any overpayments, to **Deposit Account No. 500777.**

**Please link this application to Customer No. 53184 so that its status may be checked via the PAIR System.**

Respectfully submitted,

6/7/06  
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